

REMARKS

Applicants respectfully request consideration of these remarks. Claims 1-9, 12-15, 17, 22-67, 69-74, and 76 are pending in the application. Claims 1-9, 12-15, 17, 22-67, 69-74, and 76 are rejected. Applicants respectfully submit that claims 1-9, 12-15, 17, 22-67, 69-74, and 76 are allowable over the cited prior art and the prior art made of record, as described below, and therefore the rejections have been overcome. Thus, Applicants respectfully request withdrawal of the rejections.

Claim Rejections Under 35 USC §103

10 Claims 1-9, 12-15, 17, 22-67, 69-74, and 76 are rejected under 35 USC §103(a) as being unpatentable over Jones et al., United States Patent number 6,430,164 ("Jones"), in view of Spaur et al., United States Patent number 5,732,074 ("Spaur"). The Examiner states that Jones discloses a communications system, but that Jones does not disclose a system wherein a gateway node comprises at least one interface port, at least one real-time interface processor (RTIP), and at least one application processor, wherein the at least one RTIP performs real-time operations and the at least one application processor performs high level processing functions, wherein the gateway node provides at least one of data processing, data storage, access control, protocol translation, security including service discovery and device authentication, and network control, wherein the gateway node controls remote access to the mobile internetwork in response to intermittent external communications.

25 The Examiner asserts however that Spaur discloses a mobile portable wireless communication system wherein a gateway node comprises at least one interface port, at least one real-time interface processor (RTIP), and at least one application processor, wherein the at least one RTIP performs real-time operations and the at least one application processor performs high level processing functions, wherein the gateway node provides at least one of data processing, data storage, access control, protocol translation, security including service discovery and device authentication, and network control, wherein the gateway node controls remote access to the mobile internetwork in

response to intermittent external communications. The Examiner therefore opines that, given the teaching of Spaur, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jones by including an application processor and a real-time interface processor within the communication apparatus (which can be
5 configured as a gateway) to execute application software and perform real-time multi-tasking in order to analyze and process data available in a vehicle in real-time in a timely and efficient manner.

Referring to claim 1, Spaur does not disclose or suggest the invention as claimed. For example, Spaur teaches away from the invention as claimed because Spaur only
10 discloses a controller with a single microprocessor and a real-time operating system (RTOS) that function to perform multiple tasks. Further, Spaur fails to disclose any alternative embodiments that include more than a single processor or describe any operations using more than a single processor. This teaching of Spaur is in contrast to the invention as claimed that comprises a gateway node including a real-time interface
15 processor ("RTIP") and an application processor, wherein the RTIP performs real-time operations and the application processor performs high level processing functions.

Applicants respectfully submit that Spaur discloses a communication system for use in bi-directional communication between remote stations and a vehicle via the Internet, an airlink, and the vehicle's controller area network (CAN). The system of
20 Spaur transfers communication information to/from the vehicle using a wireless device in the vehicle. The wireless device, which includes a cellular communication device like a cellular telephone, bi-directionally communicates with the vehicle CAN by transmitting and receiving information via the airlink and a controller. The controller, which is in the vehicle, is responsible for a number of functions related to understanding and acting on
25 information received from the remote stations, obtaining and responding to requested information, and operatively functioning with information including data available from other elements in the vehicle. Spaur, column 5, line 41 to column 7, line 22.

Spaur discloses a controller comprised of a number of elements including a single processor and an RTOS, a transmission control protocol (TCP)/Internet protocol (IP)
30 (TCP/IP), a web server, a common gateway interface-binary (CGI-bin), and program memory. The single processor controls all processing operations of the controller. The

RTOS performs task and memory management while responding to requests for information. The TCP/IP stack provides the necessary control in checking for communicating information like requests and data over the Internet. The web server communicates with the TCP/IP stack for servicing information related requests in hyper-
5 text transmission protocol (HTTP) format. The CGI-bin communicates with the web server and acts as a link to executable software stored in the controller program memory. Spaur, Figure 2 (element 30), and Abstract.

More specifically, the controller of Spaur includes a single processor for performing processing operations including running of executable program code.
10 Preferably, the processor is a single microprocessor that performs multiple tasks, in conjunction with a real-time operating system (RTOS) (emphasis added). That is, the RTOS manages a number of services associated with conducting one or more applications-oriented tasks. Preferably, the RTOS includes a kernel that is involved in performing real-time multi-tasking including: task management, intertask
15 communication, memory management, message management, timing, I/O management, and error management. In the context of applications associated with the vehicle, the RTOS works with applications software in a multi-task scheme to respond to requests for vehicle-related information including data. Spaur, column 8, lines 1-23.

The controller of Spaur also includes a TCP/IP stack that connects between the
20 processor and the web server. The web server services information related requests in HTTP format, and the TCP/IP stack provides necessary communication protocols in association with the Internet. The web server communicates with the CGI-bin, which acts as a link to a number of executable programs stored in the program memory. The stored executable software may encompass a variety of applications associated with the
25 vehicle. The stored executable software runs on the processor and is useful in processing, analyzing or otherwise acting on data available in the vehicle, including acting on the data in real time, such as acting on available data in real time that is used for transmission to a remote station.

With reference to the above-cited sections of Spaur, Applicants respectfully
30 submit that Spaur does not disclose or suggest the invention as claimed in claim 1. For example, Spaur teaches away from the invention as claimed because Spaur only discloses

a controller with a single microprocessor that functions to perform multiple tasks. Applicants submit that a controller using a single processor to perform multi-tasking is not equivalent to a system in which a first processor (RTIP) performs real-time operations and a second processor (application processor) performs high level processing functions (emphasis added). Therefore, the gateway node comprising at least one real-time interface processor (RTIP), and at least one application processor, wherein the at least one RTIP performs real-time operations and the at least one application processor performs high level processing functions is patentable and non-obvious over the single processor taught in Spaur.

Furthermore, the operating system (RTOS) of a processor-based system is not the equivalent of a second processor. An operating system is generally described as application-independent software running on a processor that supports the running of application software and manages the resources of the application platform (The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, the Institute of Electrical and Electronics Engineers, 2000). Therefore, while Spaur discloses “the processor is a single microprocessor that performs multiple tasks, in conjunction with a real-time operating system (RTOS),” the single processor/RTOS combination is not equivalent to a system in which a first processor (RTIP) performs real-time operations and a second processor (application processor) performs high level processing functions (emphasis added). Therefore, the gateway node comprising at least one real-time interface processor (RTIP), and at least one application processor, wherein the at least one RTIP performs real-time operations and the at least one application processor performs high level processing functions is patentable and non-obvious over the single processor/RTOS combination taught in Spaur.

As Jones and Spaur each fail to disclose a gateway node comprising at least one real-time interface processor (RTIP), and at least one application processor, wherein the at least one RTIP performs real-time operations and the at least one application processor performs high level processing functions, and Spaur actually teaches away from a gateway node comprising multiple processors, Applicants respectfully submit that the invention claimed in claim 1 would not have been obvious to one of ordinary skill in view of Jones and Spaur, alone and/or in any combination. Additionally, as claims 2-9,

12-15, 17, 22-67, and 69-74 depend from claim 1, claims 2-9, 12-15, 17, 22-67, and 69-74 are patentable over Jones in view of Spaur. Furthermore, as claim 76 includes limitations similar to those of claim 1, claim 76 is also patentable over Jones in view of Spaur. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 USC §103(a).

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that claims 1-9, 12-15, 17, 22-67, 69-74, and 76 are in condition for allowance. Thus, allowance of the claims is requested. If there are any issues that remain to be resolved prior to allowance of the claims or, in the opinion of Examiner Jacobs, a telephone conference would expedite the prosecution of the subject application, Examiner Jacobs is encouraged to call Rick Gregory at (408) 236-6646.

A Petition for Extension of Time Under 37 CFR 1.136(a) is enclosed herewith in duplicate for a three (3) month extension of time.

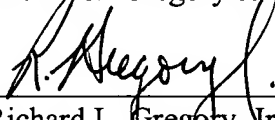
AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Please charge deposit account 501914 for any fees due in connection with this Office Action response.

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Respectfully submitted,
Shemwell Gregory & Courtney LLP

Date: December 10, 2004



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